AFM 1-3

AIR FORCE MANUAL

AIR DOCTRINE

THEATER AIR OPERATIONS

1 APRIL 1954

DEPARTMENT OF THE AIR FORCE

AFM 1-3

AIR FORCE MANUAL

AIR DOCTRINE

THEATER AIR OPERATIONS

1 APRIL 1954

DEPARTMENT OF THE AIR FORCE

AIR FORCE MANUAL
NO. 1–3*

DEPARTMENT OF THE AIR FORCE
WASHINGTON, *1 April 1954*

Foreword

1. *Purpose and Scope.* The primary purpose of this Manual is to serve as a doctrinal guide for planning and conducting air warfare in a theater of operations. It is also for the guidance and information of personnel and activities responsible for planning, supporting, or coordinating with theater air forces. It provides a guide for instruction in schools in matters relating to the employment of theater air forces.

2. *Contents.* This Manual is related fundamentally to AFM 1–2, the USAF Basic Doctrinal Manual on the employment of air power. The Manual, therefore, stresses the unity of air action, and the implicit coordination of theater air forces with other air forces directly engaged in attacks against the heartland of an enemy nation. It presents the doctrine pertinent to the employment of air forces as an entity in a theater of operations and their role in accomplishing the theater mission. It is written from the perspective of the entire theater, and with the objective in mind of coordinating and correlating the employment of theater air forces with the employment of all other theater forces. Other Manuals directly related to this Manual will develop in greater detail the concepts and principles involved in the various theater air functions and tasks.

3. *Requirement for Doctrine.* Unity and consistency of purpose in theater operations are derived from a common understanding of the basic principles involved in the employment of military forces. These principles, together with policies and established beliefs which have been developed by experience or by theory, are known as doctrine. One of the purposes of military doctrine is to provide a basis for mutual understanding within a military force, or among military forces, which generates mutual confidence between commanders and between commanders and their subordinates. Military air doctrine which is announced and understood thus provides a basis for taking positive action in situations when, for whatever reasons, precise instructions have not been issued. It indicates and guides but does not limit action during application.

BY ORDER OF THE SECRETARY OF THE AIR FORCE:

N. F. TWINING
Chief of Staff, United States Air Force

OFFICIAL:

K. E. THIEBAUD
Colonel, USAF
Air Adjutant General

This Manual contains no copyright material.

*This Manual supersedes AFM 1–3, 1 September 1953, including Change 1–3A, 15 January 1954.

DISTRIBUTION:

Zone of Interior and Overseas:	
Headquarters USAF	250
Major air commands	20
except Air University	5,000
Each Air Force officer on active duty with the regular establishment	1
Miscellaneous:	
Chief of Naval Operations	150
Chief of Staff, U. S. Army (Wash AG Pubs Depot, Cameron, Va.)	150
Chief, Armed Forces Special Weapons Project	3
Air Force Reserve Units	5
Air National Guard Units	5
MAAG's	1
Air Attaches	1
Headquarters, Civil Air Patrol	65
Senior Air Force Representatives:	
Joint Amphibious Board	5
Joint Landing Force Board	5
Joint Tactical Air Support Board	5
Joint Air Transportation Board	5
Joint Air Defense Board	5

Contents

	Paragraph	Page
Chapter 1. Introduction		
Conflict and Instruments of Power	1	1
Military Instruments in Peripheral and Heartland Action	2	1
Characteristics of Theaters of Operations	3	1
Air Power and Strategy	4	2
Chapter 2. Characteristics of Theater Operations		
General	1	4
Objectives	2	4
Forces	3	4
Conditions	4	5
Characteristics	5	5
Chapter 3. Characteristics of Theater Air Operations		
Characteristics of Theater Air Forces	1	7
Functions of Theater Air Forces	2	7
Chapter 4. The Employment of Theater Air Forces		
Section A. General		
Pattern for Employment	1	12
Selection of Targets—General	2	13
Recognition of Operational Effects	3	15
Balancing the Force Against the Task	4	15
Control of Theater Air Forces—General	5	15
Section B. Counter-Air, Interdiction, and Close Support Operations		
The Counter-Air Offensive	6	15
Interdiction—Restricting the Flow of the Enemy's Sustaining Resources	7	17
Close Air Support	8	18
Section C. Other Theater Air Operations		
Theater Air Reconnaissance	9	20
Theater Airlift	10	22
Chapter 5. Command and Control		
Command and Theater Forces	1	25
Command Relationships	2	25
Special Command Arrangements	3	26
Control of Theater Air Forces	4	26

Chapter 1

INTRODUCTION

1. Conflict and Instruments of Power

International conflict in one form or another is continuous and revolves around the national objectives of opposing nations. Strategy for the guidance of political, economic, psychological, and military instruments of power that are involved in this conflict is continually developing. As events necessitate, emphasis shifts from one instrument to another in a pattern designed to best further national objectives. When nonmilitary actions no longer achieve acceptable results in terms of those objectives, military action may follow. This action stems from a strategy which most often is not purely military, but has developed from the interplay of all the instruments of national power. When considerations of grand strategy dictate that the military instrument be emphasized to a greater extent, then military forces are developed and deployed accordingly.

2. Military Instruments in Peripheral and Heartland Action

a. For major national powers, modern implements of war as well as economic and political interests make it necessary that military strategy be global. Moreover, the nature of certain implements of war provide for attack directly against the vital elements of a nation, the heartland and its hard core of elements necessary to the national existence, while others may be used to best advantage in homeland defense or in peripheral action. Heartland, defense of the homeland, and peripheral actions are designed primarily to immobilize the enemy's deployed military forces by the progressive destruction and neutralization of the means and facilities required to sustain combat.

b. Heartland actions are conducted by strategic striking forces; peripheral actions are carried on by theater forces; and homeland defense actions are carried out by forces designed for this purpose. Being integral parts of the same global strategy, the actions of all of these forces are interrelated and mutually interdependent in terms of the effects they produce. Strategic forces can be used in theater action and theater air forces can be used in heartland action when the occasion merits.

c. Heartland action is designed to be decisive in terms of overall military strategy. (In this Manual the term decisive is used to indicate one or more of the following conditions with respect to an enemy nation: The enemy's supporting structure may be destroyed so that he cannot maintain sufficient military strength to assure victory; the enemy's will to resist may be so lowered that no united national determination remains to prosecute a war; the enemy government may lose the necessary control to unite the people and direct the war effort; the capabilities of the enemy armed forces may be so reduced that effective resistance is no longer possible.) Peripheral action is primarily designed to create and exploit situations favorable for decisive military operations compatible with the strategy for the conduct of the war.

3. Characteristics of Theaters of Operations

a. The focal points of enemy threats in relation to areas of the most vital concern to national security influence the strategic concept and the location of theaters of operations. On this basis geographical areas are designated theaters. A theater of operations thus serves as a base for the furtherance of action dictated by global strategy.

b. Theaters of operations are interrelated in terms of global strategy and mutually support the objectives of that strategy. Forces are allocated to them on the basis of the role that each theater is to play in the achievement of overall military objectives. The theater force may be composed of national or international forces. They may be army, navy, or air forces individually or in appropriate combinations. All are integrated and coordinated to perform the theater's strategic function.

4. Air Power and Strategy

a. *Surface Strategy.* Until recent years international armed conflict was characterized by military actions which occurred on the periphery of a hostile nation in attempting to remove the threat emanating from within. In order to destroy the enemy's ability or will to resist it was necessary first to overcome the enemy forces-in-being. These forces, natural barriers, and prepared fortifications presented formidable obstacles to an invading force. In these conflicts decision was slow and wars ususually were protracted. Blockade and strangulation of vital trade routes of maritime nations did at times, bring about decision with limited armed conflict but the struggle was prolonged. This strategy was dictated by the nature of the forces with which military operations were conducted.

b. *Emergence of Air Power.* With the emergence of air power as an implement of war, strategy began to change. This evolution started in World War I where there were limited attempts to employ air power in a strategic role by utilizing the unique ability of air forces to penetrate enemy defenses, to pass over and beyond surface barriers, and to attack directly the vital elements which sustained the hostile war machine. After World War I, the concept continued to develop, slowly but steadily.

c. *Ascendance of Air Power:*

(1) By the beginning of World War II technological advances had vastly improved air power as an implement of war. Although the employment of air power in this war was tied largely to objectives associated with surface action, it nevertheless outlined the pattern of strategy for future wars.

(2) Air power reached over traditional barriers to deliver firepower directly against the vital elements of the heartland of both Germany and Japan. Germany was invaded, occupied, and defeated only after air power had greatly reduced its ability to resist. In effect, all theater forces held the friendly bases while air forces struck at the heartland sources of Germany's strength. Before the beginning of extensive surface action, air forces gained air superiority and isolated the areas of surface action so effectively as to restrict—and at times virtually to forbid—the movement of necessary enemy reserves and reinforcements into the battle zone. After air forces had completed the initial phases, all theater forces engaged in coordinated operations for the exploitation of the advantages gained.

(3) In the war with Japan, air and naval action predominated. Strategic results were achieved in certain naval battles in which air forces played the major role. Submarines played a significant part in the cutting of the vital sea arteries of Japan. When air bases within range of the Japanese homeland were gained, the emphasis shifted to direct action by air forces against the enemy's heartland. Soon afterwards Japan capitulated, although her ground forces were intact and her homeland uninvaded.

(4) Throughout World War II air power was, therefore, continually in the ascendant. Because it had made the heartland of enemy nations increasingly accessible and vulnerable, air power by the end of the war became the dominant implement of war.

d. *The Role of the Theater in Modern Strategy:*

(1) Since World War II far-reaching technological achievements have increased the significance of air power in the conduct of military operations. The great increase in the speed and range of aircraft, and the development of weapons of mass destruction have increased the global capabilities of air forces.

(2) In modern war the role of the traditional surface struggle has changed, for the defeat and annihilation of opposing surface forces is no longer a fixed prerequisite to the achievement of national objectives. Air forces can swiftly cross the areas of surface conflict, strike at the vital elements of a hostile nation, and reduce its capacity to continue the conflict. Theater forces complement the strategic effort against the heartland by holding territories of importance in the overall strategy, by inflicting maximum attrition upon opposing enemy forces and their supporting structure, and by diverting forces normally disposed for homeland defense. When required and to the extent of their capabilities, theater air forces may join directly in the attack on the enemy heartland.

Chapter 2

CHARACTERISTICS OF THEATER OPERATIONS

1. General

a. Theater operations are conducted from established geographical areas and consist of a series of integrated and coordinated actions designed to create specific effects which will fulfill the theater's role in global strategy.

b. The nature of these operations is determined by the objectives which they are designed to achieve, the nature of the forces which engage in them, and the conditions under which they are conducted.

2. Objectives

Theater operations are concentrated against those elements of the enemy's military forces which constitute the greatest menace to the successful accomplishment of the theater mission. The most singular objective of theater operations is the neutralization of those enemy forces which challenge the security of those areas that are of military, political, economic, or psychological importance to the overall war strategy.

3. Forces

a. *Influence of Military Characteristics.* Military forces have characteristics which stem from the media in which they operate. These characteristics strongly influence the nature of theater operations.

b. *Land, Sea, and Air Force.* Operations within a theater take place in the media of land, sea, and air. Although operations in any of these three media can be relatively independent, and can achieve certain independent results, they generally are mutually interdependent, highly coordinated, and produce interrelated effects. These types of operations are best described by classifying and discussing them according to the medium in which each is conducted.

c. *Land Operations:*

(1) Land operations are carried out on the land surface, and are conducted primarily against the enemy's land force. The mission of the theater will determine the type and magnitude of land operations and the objectives of those operations. In general, land operations are designed to seize, occupy, and defend land areas, and to immobilize the enemy's deployed land forces. Land operations are limited by the medium in which they are conducted, and by the inherent characteristic of land forces.

(2) To support fully the effort of theater air forces in denying the enemy the means and sustenance to sustain the deployed forces, land operations must be conducted on a scale sufficient to cause the enemy land force to consume logistics faster than they can be replenished. The enemy land force should be maneuvered into situations demanding large expenditures of logistics which will tend to saturate his lines of communication. By such action, land operations create circumstances which are favorable for exploitation by theater air forces.

(3) Land operations are vulnerable to air action, and, therefore, are dependent upon air operations to create and maintain favorable situations for their full employment. For sustained land operations, ascendancy must be gained over the opposing air force. While theater air forces are waging an all-out effort to gain a position of dominance over the enemy air force, land forces must be prepared to conduct operations without freedom from interference by the enemy air force. During this phase of theater operations, land operations may have to be restricted in scope to minimize the effect of enemy air action.

d. *Sea Operations:*

(1) Sea operations are conducted on or under the surface of the sea. These operations, in conjunction with air operations, are designed to secure and maintain sea lanes of communication, and to deny the use of the sea to the enemy. The medium of water limits sea activities and produces inherent characteristics in vessels which restrict speed and maneuver.

(2) Forces engaged in actions at sea, although characterized by a degree of mobility, are highly vulnerable to disruption by air attack. For continuous operations at sea, air ascendancy is a fundamental prerequisite if prohibitive losses are to be averted. Sea operations in and adjacent to areas dominated by enemy air forces cannot be undertaken until measures have been instituted to gain control of the air and simultaneously deny its use to the enemy.

e. *Air Operations:*

(1) Air operations are conducted in the medium of space above the earth's surface. They are carried out to attain the theater objectives. Their first task in this endeavor is to secure friendly forces from air attack. After a measure of general air superiority has been established the theater air forces can launch a sustained campaign to inflict maximum attrition on enemy forces which may or may not be directly committed to battle. Thus, air operations are conducted against enemy forces which operate in any of the media: land, sea, or air.

(2) The great expanse of the air allows for actions that are limited only by the energy and design of air vehicles engaging in the action. Because the air forces operate above the surface of the earth at varying altitudes, speeds, and at great ranges, they are able to conduct reconnaissance and strikes over large areas and far beyond the zone of surface action.

4. Conditions

Theater operations are strongly influenced by geography and climate; by politico-psychological factors (particularly when many nations are involved); by the extent of resources available; and by the effects of the interplay of tactical and strategic actions occurring in the network of global operations.

5. Characteristics

The objectives of theater operations, the nature of the forces engaging in the operations, and the conditions under which the operations are conducted, combine to give certain distinguishing characteristics to theater operations.

a. *Dynamic.* Theater operations are never static. Activity is continuous and everchanging in type, form, and intensity. Generally, operations change in character to conform to the changing phases of the battle. The actions of enemy forces both within the theater and against the friendly homeland also affect operations, sometimes immediately. Likewise, the activities of friendly forces in action in other theaters, particularly of the force striking the hostile homeland, significantly influence the nature of operations within a theater. In addition, geographical features and climatological and political conditions constantly affect the action within a theater.

b. *Complex.* Theater operations are conducted in the media of land, sea, and air. Actions in any one of these media may be devoted to the performance of a multiplicity of tasks. These tasks, whether performed consecutively or simultaneously, are complex, and the details inherent in them necessitate close coordination of the diverse efforts carried out by the many and varied forces. Actions must be integrated and coordinated to produce the maximum effects at the appropriate time.

c. *Dependence on Lines of Communications:*

(1) The extension of military power to a theater of operations is dependent upon extensive lines of communication. In the case of oversea theaters, military power is generally projected over long external lines of communication, and, therefore, is vulnerable to enemy interference. When the homeland constitutes a theater of operations, it is less vulnerable to enemy counter action by virtue of shortened and interior lines of communication. In either case, secure lines of communication are mandatory for the conduct of sustained theater operations.

(2) A theater of operations is normally organized to perform all the functions and tasks necessary to maintain its existence and achieve its mission. It is, however, except in a

293591°—54——2

theater of operations that includes the homeland, dependent upon sources not organic to it for logistical sustenance. In emergency it depends upon external forces to cope with conditions beyond the capability of theater forces.

d. *Requires Security From Air Attack.* Because theater operations depend upon surface lines of communications, ports of entry, and large supply installations that are fixed and accessible to enemy air vehicles, they are subject to air attack. Without air security, movement is restricted, resources are lost, forces are depleted, and the operations jeopardized.

e. *Dependence on Large Mobilization Structure in Homeland.* The nature of theater operations is such that it requires large numbers of personnel and large quantities of material. The dimensions, diversity, and complexity of the operations are costly in resources; the manpower and machines of war for a theater of operations create a heavy drain on the homeland economy and population.

Chapter 3

CHARACTERISTICS OF THEATER AIR OPERATIONS

1. Characteristics of Theater Air Forces

a. All air forces whether employed in a theater or elsewhere have certain inherent characteristics which make them unique as implements of war. The principal reason air forces differ so markedly from other forces is that they operate in the medium of space above the earth's surface, at high speeds, and over great distances. Thus, they may be dispersed for security and then quickly concentrated for surprise attacks against targets remote from their bases. They are able to penetrate enemy defenses during daylight, darkness, and in inclement weather, and are able to attack directly targets of their choosing. In these attacks they are capable of delivering any known type of firepower upon any known objective. Because of their characteristics, the nature of the weapons, and the manner in which they are deployed, air forces are sensitive to control and respond quickly to the rapidly changing situation in which they operate. Air forces correctly used promote a high order of economy of force. Their flexibility provides a means for quickly countering unexpected threats and for exploiting fleeting opportunities for advantage in the battle situation.

b. Theater air forces are characterized by their ability to accomplish all air tasks implicit in the theater mission. They are composite forces which can accomplish both combat and support functions.

c. The size and type of theater air forces are determined by the theater mission, the nature of the threat, availability of forces, and the theater's role in the overall strategy. They may be used against targets in the heartland when required by the theater mission, or when the threat against the friendly homeland is so severe as to make it compelling that the enemy's strategic striking force be attacked with all available forces regardless of the presence of other risks.

d. Theater air forces are designed primarily to accomplish the mission of a theater of operations, while strategic air forces are designed primarily to wage a sustained air war against the heartland of an enemy nation. While these missions normally have different specific objectives, each force has the capability of supporting the other to produce interrelative effects.

e. Theater air forces are capable of operating in all geographic areas and climates. They can be employed from temporary bases whenever required by the situation.

f. The many and varied tasks which these forces perform, together with the need for specialized warning, control, and intercept devices, make these forces complex both in an operational and technological sense.

2. Functions of Theater Air Forces

a. Air forces are assigned to a theater of operations to perform certain combat and support functions implicit in the mission of the theater. Because of their flexibility and striking power, the functions performed by theater air forces have a profound influence on other theater operations. Theater air forces as a first priority accomplish those functions which afford the greatest opportunity of producing conclusive results in terms of the theater mission as a whole. All other functions performed by theater air forces are subordinated to this primary objective of producing a theater-wide effect which will facilitate the actions of

the component forces both collectively and individually.

b. Theater air forces perform three basic combat functions and a varied number of supporting functions. The priority in which these functions will be accomplished cannot be prescribed by arbitrary methods and procedures. The fundamental principle governing the priority of functions is rooted in the neutralization of the enemy threat having the most profound and continuing influence on the theater mission. The principle is compatible with the inherent characteristics of theater air forces since it provides for the maximum exploitation of the flexibility of theater air forces by employing them at the decisive time and place. Conclusive results are obtained by concentration of effort and singleness of purpose. Thus, the priority of functions will change with the degree of success achieved, but will be generally governed by the overall effects produced.

c. The functions and tasks described below are discussed in relation to their causes and effects in the conduct of theater operations. The functions are as follows:

(1) *Counter air:*

(a) Theater and heartland actions in concert form the pattern of the overall counter air struggle, and their effects are felt throughout the network of global action. The conduct of sustained theater operations is not feasible without sufficient control of the air. The bases, vehicles, personnel, and lines of communication of a theater are all subject to hostile air action. Theater forces on the surface cannot adequately protect themselves from air attack, and extensive measures taken by them to do so may jeopardize their capability to cope with hostile surface forces; therefore, the first great undertaking of theater air forces is to obtain dominance of the air. This dominance is relative and everchanging; there may be required a continuous, though varying, application of force to maintain adequate control.

(b) Extensive surface actions should be avoided, if possible, until control of the air has been secured. When the enemy air effort has been reduced, his surface action is restricted or becomes so costly as to be prohibitive. At the same time friendly surface forces are able to conduct operations without fear of effective enemy air attack.

(c) Counter-air operations may extend to all parts of a theater. The air forces may penetrate deeply into hostile territory to neutralize enemy air installations, personnel, and vehicles, or may neutralize enemy air vehicles in the air in other offensive or defensive operations. Provision must be made to protect friendly forces and installations from air attack at all times, as well as to screen and protect friendly air forces when endangered by hostile air attack. This responsibility is a continuing one throughout the conflict. Air superiority is only a relative term, and command of the air once attained must never be jeopardized through lack of effort.

(d) Air action in other theaters and against the heartland will affect the air battle in any given theater. As air attacks are directed against the heartland, the enemy nation is forced to redeploy its air forces to defend its war-making capacity. Thus, the air capabilities of that nation elsewhere are reduced.

(2) *Interdiction:*

(a) Major surface and air actions require large numbers of troops and great quantities of supplies from in or near the heartland for build-up, reinforcement, and replacement. These troops and supplies must be transported over lines of communication which extend to the battle area from sources generally distant from the forward zone of battle. When troops and supplies are moving over these lines they are more vulnerable to interdiction and destruction than when deployed in the immediate battle area. Air forces have unique opportunities to penetrate the enemy's defenses and to attack lines of communication between the heartland areas and the battle zone.

(b) Next to protecting the theater forces from air attack, theater air forces make their greatest contribution to the theater mission by neutralizing the enemy's deployed forces by interdicting his battle sustenance. Though interdiction attacks generally do not produce an immediate effect on the battle against the enemy's deployed forces, the effects of such attacks are cumulative. When the enemy is denied needed reinforcements and supplies from rear areas his deployed forces may sustain themselves for a time from accumulated stocks, especially if there is a minimum of combat activity. But if the opposing forces are engaged in strenuous battle, the logistical stocks will be rapidly consumed. As a result of this depletion of enemy logistical necessities, there is a loss in the enemy's mobility, thus restricting his capability to shift and deploy forces to counter opposing actions. When the enemy's forward reserves are depleted, and when his forces have limited freedom of movement, the combat effectiveness of his forces will be greatly reduced, and there will be created a situation favorable for exploitation. It is to the creation of this situation that interdiction operations are dedicated.

(3) *Close air support:*

(a) Within the immediate zone of engagement of surface forces, situations may develop where the capabilities of air forces can be utilized to advantage. The results of air effort in the immediate battle area are often the ones most apparent to surface forces, but usually these close air support actions contribute less to the furtherance of surface actions than do the gaining and maintaining of air superiority and the interdiction of the enemy's lines of communication leading to the combat zone. Hence, the tactical situation always must be viewed as a whole and the application of the force must be made accordingly.

(b) When weapons organic to the surface forces cannot deliver the type or amount of fire power necessary to destroy or neutralize a target in the immediate battle area, then aircraft should be used to assist the surface forces. Assistance and support should be mutual, for surface forces can, by appropriate maneuver and tactics, create situations favorable to the application of air weapons against the opposing surface forces.

(c) To bring air weapons to bear on targets within the combat zone usually requires close coordination between the air and the surface units to identify and locate targets. Careful and exact timing and control are required in these actions.

(4) *Reconnaissance:*

(a) Reliable and timely intelligence of enemy dispositions and movement is vital to the theater plan and to the conduct of operations. The tempo of modern war and the swiftness with which battle situations develop and change require the rapid collection of information over wide areas of the theater. There are many sources of intelligence information from which the picture of the general enemy situation is built up. Air reconnaissance is a major source because air forces have unique opportunities far beyond the scope of surface reconnaissance to observe enemy movement and disposition.

(b) In modern war, the speed, flexibility, and penetrability of air forces are combined with various types of sensing equipments to obtain timely intelligence information from deep within enemy territory as well as in the immediate zone of combat.

(c) Air reconnaissance is one of the major sources of data about the enemy's deployed military forces. When this data is correlated with data obtained from other sources, a comprehensive catalog of knowledge is accumulated from which may be deduced the probable courses of action the enemy will pursue. Air reconnaissance, therefore, provides information about enemy disposition and movement; weather and terrain; facilities and installations required for the conduct of combat operations. This data is obtained from all areas within the theater and may involve operations over vast land and sea areas. Air reconnaissance serves all forces in a theater, and, therefore, furnishes to the ground, sea, and air forces information from which a meaningful picture of the enemy's overall capabilities and probable intentions can be constructed. Air reconnaissance is the key and vital element to all theater operations. Air reconnaissance operations conducted in each theater of operations and those conducted by strategic air forces are mutually complementary and the combined results, when properly correlated, may provide information upon which to base modifications in the overall military strategy.

(5) *Air lift:*

(a) Normally, a theater is extensive in area, and action may occur at any place within it. The shifting emphasis of battle frequently requires swift movement of personnel, supplies, and the evacuation of sick and wounded. Theater air forces provide the means by which these functions are accomplished. These functions are complementary in nature and this accomplishment by the same components of the theater air forces maximizes economy and rapidity of action.

(b) The same components of the theater air force which perform the functions discussed above, also provide the airlift for the conduct of an airborne operation. Since the function of providing airlift for an airborne operation consumes a large portion of the theater airlift, the decision to conduct an airborne operation must be evaluated in terms of the effects it will produce and the impact upon other theater operations. The decision to launch an airborne operation cannot be made in isolation to other theater operations since all types of forces must be withdrawn from the operations in which they are engaged to support and sustain the airborne action.

(c) Air lift is not a substitute for surface transportation. It is an augmentation of surface transportation and is used when time is of the essence or in situations where terrain makes surface transportation infeasible. The nature of the air vehicle used in airlift makes it highly vulnerable to hostile air attack, and, thus, operations are dependent upon air protection when confronted with an enemy air threat.

(6) *Search, rescue, and recovery.* In peripheral action, personnel and materiel of land, sea, and air components frequently are reported missing in remote areas or under conditions that place their survival or recovery in immediate jeopardy. Air forces through their flexibility and mobility offer speedy and unique means of assistance in searching for, rescuing, or recovering men and equipment under varied conditions. The air forces engaged in these operations are diversified so as to meet the multiple problems presented by terrain, water, and climatological conditions. The relatively small size and the lack of knowledge of exact position of the objects of the search often call for complex sensing equipment. Because sea and land forces as well as air forces conduct these types of operations, close coordination between all theater forces is essential to further this effort.

(7) *Diversion and deception:*

(a) The enemy can be expected to employ available forces against an air attack carried into his territory. Penetration of the enemy's defenses frequently is assisted by delegating to certain elements of the theater air forces the task of diverting and deceiving enemy forces. Theater air operations are closely coordinated and integrated with air operations against the enemy's heartland so as to cause maximum diversion of the enemy air effort.

(b) These operations seek to draw the enemy's defensive forces out of position so that the attack can be made on the target with a minimum of loss. Diversion operations are characterized by their apparent reality in the eyes of the enemy. The forces engaged may approach enemy territory and withdraw, or they may penetrate and accept combat to carry out diversionary operations.

(c) The air forces also may divert and deceive the enemy's surface forces in such a way as to influence the progress of the land battle. Such actions are particularly useful before and during an amphibious landing.

(8) *Countermeasures:*

(a) The nerve center of any modern air defense system consists essentially of electronic devices and equipment. It is primarily by these means that invading air forces are detected and located. After they are located, electronic devices assist in their interception and destruction. Antiaircraft artillery fire also, to a large extent, is controlled electronically.

(b) Certain types of offensive air force operations are facilitated and their success enhanced by the complementary actions of electronic countermeasures operations. Such complemenary operations tend to disrupt and confuse the enemy, and thus permit greater success to the main operation. Airborne countermeasure devices are complex and require highly trained personnel for effective operation.

(c) Due to the far-reaching implications of countermeasure operations their planning and employment transcend the responsibility of any single theater. The overall agency charged with the direction of the war determines the role each theater will perform in accomplishing certain countermeasures. The theater countermeasures' program is controlled at theater level, and is harmonized with the global plan on a continuing basis. In this manner, a concerted action is achieved which provides all forces, irrespective of assigned tasks, optimum benefit from such measures to deceive and confuse the enemy.

(9) *Special operations.* Frequently there is a need in a theater for special operations which do not fall into any of the functional categories listed above. These special operations may cover many and varied tasks. Some of the more usual ones are concerned with airlifting agents to or from enemy territory, supplying friendly civilians in enemy territory, harassing actions aimed solely at enemy morale, delivering propaganda materials behind enemy lines, and actions to relieve or free friendly prisoners of war. The manner of performance of these functions is determined by the nature and importance of the specific tasks involved and the conditions under which they are performed.

Chapter 4

THE EMPLOYMENT OF THEATER AIR FORCES

Section A. GENERAL

1. Pattern for Employment

a. The fundamental pattern for the employment of theater air forces is the performance of those functions and operations which will contribute most to achieving the theater mission. Air forces are more capable than any other theater force of producing decisive effects. Theater strategy, therefore, must be designed to create situations favorable to the exploitation of air force capabilities. Theater air forces are employed in the following tasks which produce theater effects: The destruction or neutralization of enemy air forces which threaten the theater; the progressive neutralization of the enemy strength to sustain combat by isolating combat forces from their means of supply and battle sustenance; the disruption of enemy actions in the immediate area of engagement between the two opposing surface forces. In addition, they may supplement the strategic effort against the enemy's heartland. The priority of these tasks is dependent upon the effects they produce in terms of the theater mission and the overall war strategy. The emphasis will shift from one action to another according to the degree of success achieved. The proper emphasis can be determined only after cognizance is taken of several fundamental factors.

b. Timely and offensive employment in mass against well chosen objectives is fundamental to the full exploitation of the combat potential of theater air forces. The flexibility of theater air forces permits them to exploit the principle of surprise to a greater degree than can forces operating in surface mediums. Surprise, coupled with the striking power of weapons of mass destruction, may be decisive at any stage in the course of the conflict. These elements, in fact, may be decisive at the very outset of hostilities.

c. Through the exercise of the initiative, the attacker can dictate the time, place, strength, and method of attack. It is through the power of initiative that air forces are able fully to exploit their striking power. When air forces are compelled to assume a position of defense, they enhance the ability of an opposing air force to achieve a condition of ascendancy. Theater air forces assume the offensive from the outset and carry the battle to the enemy's redoubt. By taking the offensive, theater air forces gain the initiative and compel the enemy to respond with defensive operations. An air force thus forced to defensive operations for survival loses its potency and the inevitable process of decline begins.

d. A condition of ascendancy over the enemy's deployed air force is the aim of theater air forces. From this condition of ascendancy, theater operations can be conducted without major interference from the remainder of the enemy's air force. Because of the influence of enemy air action on theater operations, theater air forces are employed so as to obtain a theater-wide condition of air ascendency. Localized air superiority does not provide the necessary security for theater operations on a sustaining basis. Localized initiative may be relinquished or action avoided altogether to further the development of a situation which is more fundamental and far-reaching in its effects. Theater air forces normally are not committed to localized actions which are limited in effect and

magnitude and which lessen or destroy their capacity to achieve decisive results.

2. Selection of Targets—General

a. The most difficult task associated with the employment of theater air forces concerns the selection of targets and target systems. This is a task requiring mature judgment, detailed data, and thorough analysis. If any one of these elements is lacking, the effort of theater air forces may be totally expended without producing qualitative results necessary for sustained theater operations against an adroit enemy. The application of the theater air effort must be based on the most expert selection of targets whose destruction or neutralization is within the capacity of the available force, and affords the greatest opportunity for success as measured against the mission assigned the theater in the overall war strategy.

b. The general criterion for the establishment of target priorities will vary according to the theater commander's evaluation and appraisal as to what actions potentially assure the highest degree of success. Thus, target priorities constantly are shifting within this frame of reference, but never deviating from the single objective of concentration of effort. Due to their great versatility, theater air forces can be concentrated rapidly on targets in a wide variety of related actions. Theater air forces are not committed against targets of limited significance which are not directly associated with the decisive theater action. Economy of force and singleness of purpose are achieved when targets are selected whose neutralization produces interrelated effects throughout the theater.

c. Surface forces are employed against those targets which are of immediate concern to their operations, and which are suitable for attack by organic weapons or to exploit theater air capabilities. Theater air forces are applied against targets of immediate concern to surface forces when technical limitations of surface weapons cannot produce the desired effect, when surface forces are committed without their normal organic weapons, or when the disposition of the targets cannot be brought under fire by surface weapons. When theater air forces are concentrated against targets of immediate concern to surface operations, surface forces rapidly exploit the effects achieved by such attacks with vigorous surface action.

d. Targets within a theater may comprise some of the following: all types of military forces, transportation centers and facilities, lines of communication including the vehicles that use them, airbases, logistical support structures, industrial installations, and defensive fortifications. These targets may be found in various forms and concentrations. Some of them are highly mobile while others are of necessity fixed in character. Timely action to destroy or neutralize a target may be equally as important as the selection of the correct target. Mobile forces of the enemy usually can be more easily destroyed when surprised prior to being committed to action. The enemy air force is manifestly more vulnerable while on the ground than in the air. Mechanized forces are most vulnerable to air action during the process of assembly and grouping in preparation for battle. The greater the degree of mobility of the enemy force, the greater must be the element of surprise.

e. Timing is vital for attacks on a target system as well as for attack on individual targets. Great dividends accrue on the one hand from anticipating threats or actions, and on the other hand from patiently waiting for highly remunerative targets to develop.

f. In addition to the foregoing considerations for target selection there are certain criteria which have general application. These are:

(1) *Vulnerability:*

(a) The determination of the vulnerability of targets or target system involves an analysis of a number of complex factors. Each factor must be carefully considered and evaluated before forces are applied. Premature application of forces without proper consideration of the vulnerability of the target may result in needless expenditure of effort with little or no appreciable effect upon the enemy's ability to conduct combat operations.

(b) A fundamental factor in considering the vulnerability of targets is their essentiality to the enemy's combat effort. The breadth of this factor requires an examination of the entire spectrum of targets within a theater of operations. From this examination, targets are chosen which are most essential to

the enemy's combat activities. Since such targets are the foundation of the enemy's combat structure, they embrace the significant area of enemy strength for without their preservation combat operations may have to be drastically reduced or suspended entirely.

(c) Another aspect of vulnerability is the inherent characteristics of targets. In order to determine the susceptibility of targets to destruction or neutralization, detailed knowledge is required of their physical features such as fixity, mass, construction, location, and dispersion. From this information a composite picture is constructed which includes all the known qualities and specifications of the targets.

(d) Knowing the physical qualities of targets, their vulnerability is then measured against the capabilities of available weapons to produce varying degrees of effect. A detailed understanding of the capabilities, limitations, and effect of various weapons is required in order to select the most efficient and economical weapon. Targets may be vulnerable to attack but impervious to the weapons available at the time required.

(e) Another factor pertaining to target vulnerability concerns the availability of forces in sufficient magnitude to produce the degree of effect required. The forces must be sufficient to assure that the effects produced are commensurable with the effort expended. Thus, many targets which are lucrative in nature may not be brought under attack because of the prohibitive force requirements. On the other hand, segments of such targets may be engaged with a recognition of the limited effects which will be produced. Targets and targets systems, therefore, cannot be considered vulnerable unless they are essential to the enemy combat effort, their physical qualities are known in detail, weapons available are suitable for the task, and forces are sufficient in magnitude to produce the desired effect.

(2) *Identifiability:*

(a) Before a target is selected for attack, it must be evaluated as to its identifiability. Some targets due to their nature, such as a missile launching site, are very difficult to identify because of their adaptability to camouflage, physical size, and location. Positive identification facilities maximum exploitation of forces and weapons, whereas questionable identification may require repeated attacks with an attendant wastage of effort. Before forces are committed, therefore, the target should be thoroughly examined as to its ease or difficulty of identification, and measures taken accordingly to insure that the expended effort is commensurate with the results produced.

(b) Whenever feasible, targets selected for visual attacks should be identified by photographic means prior to commitment of attacking forces. By photographic identification of the target, crews are presented a perspective of the target as it will exist and errors are minimized. The more thoroughly the target has been photographed the lesser the chance will be of mistaken identification. Economy of force dictates the application of all methods and techniques to insure that the target is identified, and that target identification is within the capabilities of the attacking force.

(c) Since theater air forces operate under all conditions of weather, both day and night, target identification under these adverse conditions assumes special significance. For adverse weather operations, target identification is dependent upon electronic devices. Targets selected for attack under these conditions must be susceptible to identification by electronic means, and within the capabilities of the attacking forces to deliver the attack without visual reference. Electronic reconnaissance of such targets is a prerequisite for target identification by the attacking force.

(3) *Recuperability:*

(a) Some targets and target systems have a relatively high degree of recuperability because of their depth in duplication and cushion. Targets of this nature are selected with extreme care since it may take considerable time and effort to eliminate the cushion before an adverse effect is felt by the enemy combat forces. The selection of such targets is essentially governed by the time and magnitude of forces required to produce a given degree of effect.

(b) Target systems having a low degree of recuperability at the outset of hostilities may have it to a much higher degree during other phases of the war. Idle capacity may be brought into being as a means of recovery. A higher degree of mobilization may be instituted

to offset losses by increased outputs of existing facilities. Nonessential activities may be curtailed and the gained surplus allocated to support military forces. It may be anticipated that an enemy will display great ingenuity in minimizing the time required to restore the capacity of a key target or target system.

3. Recognition of Operational Effects

While careful selection of objectives will result in major economies in the utilization of forces, the resultant savings can be lost by the lack of continuous and accurate information on the progress of the operations. The proper employment of air forces demands that provision be made for obtaining sufficient information to permit the timely recognition of the point at which the operation either has achieved its goal or has failed to do so to the degree that it must be abandoned or revised. Objectives must be realigned quickly in consonance with the success or failure of an operation.

4. Balancing the Force Against the Task

a. *Priority.* In selecting targets it is essential to balance the force available against the tasks to be carried out. The combat tasks of counter-air, interdiction, and close air support continually shift in relative importance. There are generally insufficient forces to conduct extensive operations in all air tasks at one time; thus the selection of targets and the allocation of effort must be in terms of the needs of the theater. Enemy action may necessitate a major revision in task priorities. Peripheral actions are dynamic, and the balance of forces is correspondingly sensitive.

b. *Considerations for Determining Force Requirements.* Sufficient forces must be provided to sustain the effort until the task is effectively accomplished. In order to determine the kind and amount of forces needed, the nature of the task is first analyzed. When the task involves the application of fire power or other destructive agents, a system of targets will be selected whose destruction or neutralization will achieve the desired results. Similarly, each target is analyzed to determine the amount and type of destruction necessary. In the determination of combat force requirements, analysis begins with the objective, proceeds to the effects considered necessary to achieve the objective, and then progresses to an analysis of the effects desired on each individual target. The analysis continues through the probable circular error, losses to enemy action en route to the target, air vehicle aborts and malfunctions in the air, and finally to the number of air vehicles and weapons that must be launched to achieve the desired results.

c. *Sustaining the Operation.* Once initiated, action must be vigorous and resolute; against hostile forces it must be continued until an established level of destruction or neutralization is reached. If the effort falls short of its goal by even a relatively small margin, time and forces may be wasted.

5. Control of Theater Air Forces—General

Air forces are an entity and should be employed as such. Their versatility, flexibility, and capacity for concentration are denied when employed in segments for localized effects. Centralized control of all air forces in a theater permits the application of fire power in timely and sufficient quantities to those targets which offer the greatest return in relation to the mission of the theater.

Section B. COUNTER-AIR, INTERDICTION, AND CLOSE AIR SUPPORT OPERATIONS

6. The Counter-Air Offensive

a. *Appraisal of the Counter-Air Threat:*

(1) Because air forces may be deployed to widely separated bases and dispersed in the air or on the ground, it is seldom practicable or possible to neutralize them completely and thus to eliminate the enemy air threat to a theater of operations. Airbases and facilities may be replaced in a relatively short period of time. Moreover, the enemy may replace air losses on his periphery by moving in reserves, by increased production, or by bringing in forces from other areas. Thus, the enemy will be able to preserve segments of his forces even though successful attacks have been waged against his airbases and facilities

(2) Attacks against the enemy heartland by strategic air forces produce indirect but concrete effects upon the strength and composition of hostile peripheral air units. The effects of continuing conflict between peripheral air forces themselves produce changes in their relative strengths, sometimes marked but at other times almost imperceptible.

(3) It follows, then, that appraisal of the enemy air threat to the theater must be continuous. The appraisal requires an overall air viewpoint. The analysis and evaluation of the factors which go to make up the threat require the highest professional and technical skill concerning the employment of air forces. This is a vital and continuous function of the theater air commander.

b. *Counter-Air Intelligence:*

(1) *General.* The appraisal of the enemy air threat is based upon the most reliable, complete, and timely intelligence possible, covering the disposition and movement of enemy air forces and the results of previous counter-air attacks. Such intelligence is vital to the planning and execution of counter-air operations. Technical information on the capabilities and limitations of enemy equipment, and information concerning enemy training, tactics, morale, and leadership, also are important factors in the buildup of complete intelligence.

(2) *Sources.* Intelligence information is gained from many sources. Air reconnaissance is a major source and probably the most important one for gaining information concerning enemy air capabilities and limitations. However, pre-strike reconnaissance to locate enemy air bases after the beginning of hostilities may be unable to provide information in time for use in the counter-air offensive. The location of enemy air bases should be known prior to hostilities and a means established for obtaining information concerning the movement of forces from one base to another.

(3) *Counter-air targets:*

(a) The theater-wide implications of the enemy air threat necessitate that, in general, the theater air commander select the targets for offensive counter-air action. At times, however, situations may arise in which subordinate air commanders will perform this function.

(b) The first consideration in the selection of targets for offensive counter-air operations is to identify those parts of the enemy air forces which pose the greatest threat to the theater mission.

(c) The enemy's theater air structure consists of air vehicles, air bases, and operating personnel. Depending upon circumstances, any one of these might be the most profitable to attack. Attacks on air bases may result in the neutralization of all the elements of the air structure: Air vehicles, air bases, and operating personnel. However, attacks on air bases might find the air vehicles dispersed in the air or deployed to other bases and the personnel removed. On the other hand, the destruction of the enemy's air bases and facilities may be decisive if such action denies him the required range or other conditions necessary for offensive operations.

(d) Air vehicles on the ground and concentrated are markedly more accessible and vulnerable than if airborne. The importance of air bases to the enemy's offensive capabilities varies materially in terms of their size, distance from the area of combat engagement, and the installations and facilities on them. Moreover, the bases may contain heavy concentrations of personnel and air vehicles at one time, or they may be almost deserted at another. Therefore, the selection of offensive counter-air targets must take into consideration the factors of conditions and time.

c. *Theater Air Defense:*

(1) The complete neutralization of the enemy's air force seldom is possible; therefore, the establishment of an air defense system for the theater is necessary. Although some of the attacking air forces still will penetrate theater defenses and attack vital targets, the maintenance of an effective air defense system compels the attacker to rely heavily on tactics of maneuver and deception which divert part of the attacking force to noneffective operations, and which tend to minimize the effects of the attack. In order to achieve effective results the enemy is forced to expend a greater portion of his resources. Thus, the enemy offensive air capabilities establish a requirement for a theater air defense system which is organized and equipped to neutralize or reduce the effects of air attacks against friendly forces, installations, and resources.

(2) Air defense will involve direct combat against attacking forces by those air and antiaircraft artillery organizations which are assigned primarily to that task: Passive defense and deception—the use of smoke screens, electronic devices, blackout, and so forth—on the part of all theater forces to the extent prescribed by appropriate commanders; and preventive measures such as fire control and medical aid to reduce the cumulative effects of air attack.

(3) Generally, air defense in a theater of operations under conditions of war has two aspects: The defense of the forward zones and the defense of the rear zones. The geographical extent and depth of a theater in conjunction with the capability of the friendly and opposing air forces will indicate the zonal demarcations of air defense responsibilities. For a theater with limited depth, air defense of forward and rear zones may be accomplished by a single air defense organization under the theater air commander. When a theater embraces a large geographical area, the air defense of rear zones is accomplished by a theater air defense command, while defense of the forward zones is accomplished by tactical organizations having primary responsibility for actions in those areas. Irrespective of the physical characteristics of the theater, the defense of the forward and rear zones is an integrated action and control facilities are interlinked to form a continuous system of air defense throughout the theater. The theater air commander has the responsibility for the air defense of the entire theater, and all forces having a primary capability for the accomplishment of this task should be placed under his operational control.

(4) The air defense of forward zones is primarily concerned with the security of combat forces and their immediate supporting facilities and the antiaircraft defense may be conducted by organic weapons of the U. S. Army. Air defense forces in those areas supplement and augment forces carrying the fight into the depths of the enemy's base operating areas. They also provide security for offensive forces taking off and landing during periods of great activity by the enemy air forces. The intensity and severity of enemy air action will dictate what portion of the tactical forces is given the responsibility for air defense. The amount of effort committed to this defensive task will vary according to the success being achieved in gaining a position of ascendancy over the opposing air force.

(5) The theater's rear zones, containing the lines of communication and the port and supply areas, are the most vulnerable and likely targets for enemy air attack. Those installations and areas of the greatest importance are designated by the theater commander; they receive special consideration in the development of defense forces, and the air defense elements, including antiaircraft artillery, are oriented to the local defense of them. Local air defense of the most vital areas combined with defense in depth delineate the pattern for the air defense system of the rear zone of a theater of operation.

(6) Intelligence concerning the equipment, tactics, and training of the enemy's air forces is necessary for the establishment and maintenance of the theater air defense system. Also, it is mandatory that air defense forces be in a state of constant readiness, and that their reaction to attacking forces be immediate.

7. Interdiction—Restricting the Flow of the Enemy's Sustaining Resources

a. *Coordinated Action.* Interdiction attacks are directed against the enemy's lines of communication over which reserves and supplies flow to the battle area. For the greatest results to be achieved from those operations, air and surface forces engage in coordinated action. Surface forces contribute to interdiction by offensive action which forces the enemy to accelerate his consumption of reserve stocks in the battle area. When the enemy is weakened by having insufficient supplies to meet the demands of battle, a situation is created favorable for exploitation.

b. *Selection of Interdiction Targets:*

(1) A study of the enemy's transportation system will reveal its most sensitive and vulnerable segments. The capability of the enemy to reroute, trans-ship, or employ entirely new means of transportation is an essential consideration. The extent of the possible seepage of supplies through breaks in lines of communication also needs to be evaluated. Interdiction operations cannot be expected to result in complete denial of resources to the enemy;

rather, interdiction seeks to interrupt the movement of supplies to the extent that resources are reduced below a critical level.

(2) The determination of when and where to initiate an interdiction program requires an overall theater viewpoint. The theater commander, possessing knowledge of the theater tactical situation and the enemy's economic and transportation structure, initiates the interdiction program by issuing to the service component commanders directives which establish the broad interdiction plan. This directive describes the general area to be isolated, the approximate degree of denial that should be imposed, the time within which these effects are to be produced, and the priority of the task.

(3) Every advantage offered by a full application of force should be exploited on initiating and while sustaining an interdiction campaign. The initial attack should be carried out with sufficient force to cut the flow of supplies along all the avenues available to the enemy over which an acceptable level of sustaining resources may be provided.

(4) The initial attack will produce immediate effects that can be exploited to considerable advantage. Traffic over routes of communication moves on fairly regular and well-timed schedules. When these schedules are disrupted, the congestion, stoppage, and disorganization that result will provide targets of significant but fleeting value.

c. *Sustaining the Interdiction Operation.* Interdiction usually requires a continuing expenditure of effort. Once the desired degree of interdiction is established, it should be maintained. Wide coverage by reconnaissance and other intelligence collecting agencies is essential to the maintenance of interdiction. The enemy's repair effort and his improvisation and substitution activities should be constantly surveyed. In general, it is advantageous to allow the enemy to expend effort in repair to the point where the facility is almost ready to become operative. A reattack at this juncture is usually more effective and less costly in terms of the total effort. Through passive defense and the employment of deception an alert enemy may be expected to reduce the effects of interdiction attacks. The greatest possible effort should go into the initial attack in an attempt to completely disorganize the enemy's transportation system before defensive measures can be taken.

8. Close Air Support

a. *General.* Close air support consists of attacks by air vehicles on hostile surface targets which are located in the immediate area of engagement between the two opposing surface forces. Close air support operations require an air organization skilled in the execution of its tasks. Detailed and continuous coordination between theater air, ground, and sea forces is essential for integrated theater operations. Actions of each force component are continuously coordinated with the others, and the impact those actions will have on their particular activities is assessed.

b. *Relationship of Forces:*

(1) In the conduct of close air support operations, corresponding air and ground forces function as a team. Although each operates under its own commander (with unified command of both vested in the theater commander), close relationship is so essential to the successful accomplishment of their respective missions that parallel levels of command cooperate and coordinate in the planning of operations of mutual interest. Air and surface forces in a theater of operations function as members of a highly coordinated team. As members of a team, each supports the activities of the other. Theater air forces are dependent upon the support of surface forces for the capture and protection of base operating areas, and for the conduct of specified operations which will facilitate the effective employment of the theater air forces. Mutual support is the fundamental basis upon which the air-surface relationship is founded.

(2) To facilitate coordination of the air and ground effort, appropriate higher headquarters of both air and ground forces generally are located in close proximity to one another. Normally, command decisions are limited to the tactical air command-army group and to the tactical air force-field army levels, if such groupings exist within the theater. When there is a difference of opinion between the respective commanders, the matter is referred to the next higher echelon of air and ground commands for resolution. For those matters that cannot be mutually resolved, the theater commander is the final authority.

c. *Planning for Close Air Support.* Planning is exercised at parallel levels of air and ground force commands. Concurrent planning extends through all echelons of both forces engaged in air-ground operations, and is initiated at that command level where maximum results can be achieved with available forces. To provide rapid communication, flexibility, and control, the directions of these operations must be centralized and their execution must be decentralized.

d. *Operations in Close Air Support:*

(1) Theater air effort is massed and concentrated in time and space when employed in close support operations. Piecemeal employment against widely separated and unrelated targets of only local significance vitiates the effectiveness of the air effort and produces inconclusive results. However, there will be separate and significant targets which are of such a nature that they can be more effectively and economically engaged by air attack than by surface attack. In such cases air effort should be applied to destroy or neutralize these targets.

(2) There are two general situations in which close combat air support has its greatest opportunity to contribute to the theater mission: When coordinated with surface action to achieve a breakthrough, followed by a rapid exploitation; and when coordinated with surface action to prevent a major enemy breakthrough that would have disastrous effect on the theater as a whole. These situations must be of sufficient scope and magnitude to be of a decisive nature in order to warrant diverting the theater air force to the close support task.

(3) The decision to apply theater air forces in mass for the purpose of close air support is made by the theater commander in the light of the air situation and controlled and executed by the theater air commander and his subordinate air commanders.

e. *Selection of Targets in Close Air Support.* Targets for close air support operations are almost always characterized by their mobility and fleeting nature; however, some targets may be fixed, for example, fortifications. The criteria for their selection are generally those previously indicated in this chapter for the selection of all targets. Generally, close support attacks are not conducted against targets which can be engaged effectively by surface forces within the time required. During an amphibious operation, however, when ground forces are without benefit of organic artillery, close air support attacks in conjunction with naval gunfire provide the primary means of neutralizing and destroying targets impeding the landing and advance inland of ground forces.

f. *Types of Close Air Support Missions.* Theater air units in close support operations are employed in two general classes of missions, *preplanned* and *immediate:*

(1) Preplanned missions are those which are decided upon early enough to allow complete planning and thorough preparation. Generally, they are more economical and efficient than are immediate missions.

(2) An immediate mission is one which has been scheduled for an attack against a target of opportunity, but the actual target and time of attack are determined subsequently by events which necessitate the employment of an air strike.

g. *Communication in Close Air Support:*

(1) The conduct of effective close air support operations is dependent upon accurate, secure, and flexible communication. The factors of time and space in modern air and surface warfare are such that effective control and coordination can be achieved only by the establishment of rapid means of communication between all principal echelons of the air forces and the ground forces.

(2) In close air support, theater air forces utilize the basic control and communication system created for the accomplishment of counter-air, air defense, and interdiction operations. In addition to this basic system, other elements are added to extend the chain of control into the surface battle area so as to provide for precise direction of the air effort against targets requested by the surface forces. The entire chain of control is thoroughly integrated to provide the air commander with the means necessary to accomplish his assigned mission. It is axiomatic that the air commander must have command of all elements of the control system if he is to effectively employ the air effort at the time and place required.

(3) For close air support to produce worthwhile results, it must be applied at the decisive time and place. In order to accomplish this, surface forces are required to establish

and operate a mobile communication system to process requests for air actions. This communication system must be devoid of delays and staffed with operational personnel capable of judging the necessity of requests for air actions submitted by subordinate surface echelons. It is incumbent, therefore, upon surface forces to insure that their request system is capable of rapid and accurate presentation of their requirements for air action.

Section C. OTHER THEATER AIR OPERATIONS

9. Theater Air Reconnaissance

a. *General:*

(1) Theater air reconnaissance forces are highly specialized and designed to produce photo intelligence about the forces of the enemy. The utilization of this information provides knowledge for the effective application of theater forces in accomplishing the mission of the theater. The execution of the air reconnaissance task necessitates the employment of these forces over the entire range of the theater, and for all forces engaged in theater operations. No one force in a theater receives the preponderance of the air reconnaissance effort unless that force is committed to a theater action of some consequence. The air reconnaissance effort is applied in force to the task considered of paramount importance by the theater commander. This principle of commitment provides for concentration of effort to those things which are essential and mandatory for success in battle.

(2) To render effective results, information obtained by air reconnaissance must be immediately placed at the disposal of the requesting agency, and in time for that agency to take appropriate action. Information collected by air reconnaissance means requires detailed analysis and widespread dissemination of findings. By timely and considered analysis, many unnecessary requirements may be eliminated by the usage of existing information. It is a responsibility of all echelons of command to screen requests for air reconnaissance in order to determine that such information is not already available.

b. *Reconnaissance Planning:*

(1) The theater commander will assess the needs of the theater for air reconnaissance information, assign priorities, and indicate the basic task to be performed by the theater air commander. The theater commander's decisions are set forth and developed in the theater plan which constitutes the basic guidance for the major component forces of the theater.

(2) The theater air commander develops plans for the application of the air reconnaissance forces in the proper amount and type, and at the right time to coincide with the decisive actions of the theater. His plans are less general than the theater plan, and provide sufficient detail for the tactical air commands and tactical air forces to develop the specific operations required to support the theater air plan of action. The planning process is continuous and integrated from the theater plan down to and including the tactical air forces. This process provides for centralized direction and decentralization of responsibility and authority for execution.

c. *Selection of Reconnaissance Objectives:*

(1) In the development of air reconnaissance plans, the selection of objectives is of primary importance. The selection will be guided by existing intelligence, the intelligence collection plan, the theater plan of operations, and the specific plans of operation of the ground, naval, and air forces engaged. Reconnaissance objectives are subject to continual change as a result of intelligence and operational needs.

(2) The basic undertakings of these forces are defined by the theater air commander, and specific tasks are prescribed by the commanders of the tactical air commands and of the tactical air forces. The definitiveness of the objectives will depend upon the tactical situation and the peculiar requirements of the type of operation involved. The selection of target systems as an objective is a responsibility of the theater air commander. The selection of individual targets within the system is a responsibility of subordinate air commanders. In general, the degree of complexity of the target system will determine the level of command responsible for the analysis. In situations where air reconnaissance targets are largely transient and fleeting in nature, the selection of objectives and application of the force will be delegated to the air commanders conducting the operations.

d. *Employment of Reconnaissance Forces:*

(1) *Counter-air offensive:*

(a) A priority task for air reconnaissance forces is the collection of information for the conduct of the counter-air offensive. Since ascendancy over the opposing air force is of paramount importance to theater operations, air reconnaissance forces are preponderantly committed to the support of this action until an acceptable degree of superiority has been achieved. Air reconnaissance is the primary source of information about the enemy's deployed air force; therefore, the counter-air offensive is rooted in the data produced by air reconnaissance.

(b) Visual, photographic, and electronic reconnaissance all are employed to gain essential information about the character of the enemy air force. Air reconnaissance provides information about the following aspects of the enemy air force: Size, composition, and deployment; specific types of air vehicles and weapons; air bases and their organic facilities; control and warning systems; logistical and overhaul depots; and protective and defensive arrangements. Reconnaissance forces must be prepared to obtain such information under all conditions of weather during daylight and darkness. This is a continuous task and never is completed until the war ends. The magnitude of effort required, however, will vary in accordance with the success achieved in the counter-air offensive.

(c) Theater air reconnaissance forces may be employed to augment those other reconnaissance forces engaged in the collection of information about the enemy's heartland. Likewise, theater air reconnaissance forces may be augmented by other air reconnaissance forces when both are engaged in a common mission such as the counter-air offensive. Irrespective of the employment of reconnaissance forces, the information secured by them is interchanged between forces engaged in theater actions and those engaged in heartland action.

(2) *Interdiction operations:*

(a) The lines of communication by which an enemy supports deployed military forces constitute one of the most vulnerable elements of his combat structure. To exploit this vulnerability by air forces, a comprehensive and systematic program is essential. Air reconnaissance is the cornerstone of data upon which such a program is launched and sustained. The impact of restricting and disrupting the enemy's lines of communication is of such widespread and profound significance that theater air forces initiate this action as soon as the enemy air force no longer poses an unacceptable threat to the theater. When the theater air effort is shifted to the interdiction program as the primary action, the reconnaissance effort likewise is reoriented to the new task. As air reconnaissance is an inherent part of the counter-air offensive, so is it an inseparable part of the interdiction program.

(b) All means of air reconnaissance are employed in the interdiction program. Detailed information is sought which will indicate the most vulnerable features of the enemy's lines of communication. From air reconnaissance the following type of information is sought: Technical features of the transportation system; maximum traffic the system will support; repair and overhaul facilities; inherent flexibility of the system to accommodate emergencies; degree of mechanization and dependence upon sources of power; and physical qualities (marshalling yards, ports, air terminals, and so forth). Based on this type of information a detailed analysis can be conducted of the most vulnerable aspect of the system for attack. Air reconnaissance is continuously applied to the interdiction program to assess effectiveness of the operation and to provide information for shifting the emphasis of the operation as additional opportunities unfold.

(3) *Surface operations:*

(a) The application of air reconnaissance to the surface battle increases the flexibility and tactical capability of friendly forces, and simultaneously decreases the ability of enemy forces to achieve security and surprise in their operations. The ability of air reconnaissance forces to reach far beyond the area of surface engagement makes possible the collection and dissemination of information of strategic significance for the future employment of surface forces. Air reconnaissance in the immediate battle area provides friendly forces

with information about the enemy's current battle deployments and weapon locations which threaten their tactical operations. Thus, air reconnaissance is a major source of information of a strategical and tactical nature which imparts to surface forces an increased capability to exploit their full potentiality.

(b) Visual, photographic, and electronic reconnaissance information is obtained for surface forces. Air reconnaissance may be employed to collect information on some or all of the following: Disposition and deployment of enemy ground and sea forces; movements of forces and weapons into and within the battle areas; locations and defensive arrangements of enemy weapons; concentration and build-up of strategic reserves; condition of lines of communication and capacity to support enemy combat requirements; defensive works and fortifications; and specialized information about areas of suspect. From such information, surface forces are in a better position to predict the enemy's most probable course of action and to institute appropriate counter action. Analysis of such information also provides for greater selectivity in requesting air action where it will yield more profitable results.

(c) Theater air reconnaissance forces conduct weather reconnaissance for the planning and conduct of theater operations. Also, those same forces are employed supplementary to the global weather system.

(d) Up-to-date and accurate maps and charts are essential for all types of military operations. It is not unusual for military forces to be thrust into areas and localities where existing maps are completely inadequate for the contemplated operations. Air reconnaissance forces are employed to the task of mapping enemy territory both for theater and heartland action. Usually, specialized reconnaissance forces are held apart from this task and operate under the highest command level concerned with the overall direction of the operation.

10. Theater Airlift

a. *General.*

(1) The magnitude and diversity of theater operations emphasize the necessity for forces possessing great mobility. Mobility permits theater forces to be concentrated in the critical areas where enemy forces are assembled for decisive action. Since these critical areas cannot always be accurately predicted, the theater commander must be able to deploy counter forces quickly. Theater airlift is the major means available to the theater commander for the movement of forces when time is the all-important consideration or where geography makes surface transportation prohibitive. By using troop carrier forces, theater forces can be expeditously committed against those enemy forces posing the greatest menace to the theater.

(2) Since troop carrier forces serve all components of a theater, they are constituted as an organic force of the theater air commander, and employed on behalf of the theater objective rather than any specific component force of the theater. It is this inclusive characteristic that requires centralized direction of the troop carrier forces in a theater of operations. Moreover, it is only through centralized direction that the operations of the forces can be kept sufficiently flexible to insure their availability whenever the combat forces attempt to exploit enemy weaknesses.

b. *Assignment and Control:*

(1) When assigned to a theater of operations, troop carrier forces become a basic element of the theater air component. They are directed and controlled by the theater air commander, who establishes subordinate organizational structures for the detailed operation and execution of the tasks assigned to the airlift forces. In accordance with theater directives in which the theater commander has set forth the general priority of tasks, the theater air commander establishes specific priorities and tasks, and develops and sustains the required airlift capacity. When the priority of tasks is not balanced to the capability of the troop carrier forces, the theater air commander seeks a reconsideration of the theater directive. It is the theater air commander who advises the theater commander on the capacity and capability of the troop carrier forces to perform the tasks created by operational conditions.

(2) The employment of troop carrier forces to any given task within a theater must be balanced against the effects on other operations. For example, when troop carrier forces are committed heavily to one type of operation, they have a very diminished capability for other airlift activities. It is evident, therefore, that before commitment the advantages anticipated from a particular operation must be measured against the adverse effect on other operations dependent upon airlift.

(3) This process of evaluation is mandatory in view of the continuous and conflicting demands imposed on troop carrier forces by all other forces within the theater, and because the utilization of the airlift capacity will change as the theater plan changes with the tactical situation. It is only by close coordination between the theater commander and the theater air commander that the real value of troop carrier forces can be realized.

c. *Personnel and Cargo:*

(1) The theater air commander provides an intratheater air line, operating on a regular schedule, for the orderly movement of personnel and equipment to all elements and areas within the theater. This line handles the normal movement of personnel and freight within the theater. Nonscheduled services are rendered for the movement of high priority freight that cannot be accomplished by scheduled runs.

(2) All the facilities and services associated with the airlift function are the responsibility of the theater air commander. This includes the operation of the air terminals, receipt and storage of cargo, loading and offloading of cargo, and all other activities incident thereto.

(3) One of the major airlift functions performed by the theater air commander is the delivery of equipment and supplies to the combatant forces. When surface transportation is not able to meet the demands of combat forces, troop carrier forces are employed to sustain combat operations. When so used the airlift is not a substitute for surface transportation, but an expedient to bridge the crisis. When the crisis has abated, normal methods of logistical support are reestablished.

(4) When combat forces are encircled and cut off from their normal lines of communication, troop carrier forces are the primary—and at times the only—means by which the encircled forces are evacuated or logistics are provided for continued resistance. The delivery of logistics under such circumstances becomes a predominant concern of the theater air commander since a large portion of the theater air force will be involved in preventing enemy interference with the air lift operation. In the conduct of such operations, the theater air commander is responsible for the operation of aerial ports, air heads, loading and off-loading of cargo (both air landed and parachuted), and all supporting air actions.

d. *Aero-Medical Evacuation:*

(1) Aero-medical evacuation within the combat zone to include battlefield pick-up of casualties, the airlift to initial point of treatment, and any subsequent move to hospital facilities within the combat zone is the responsibility of the Army. Air Force assault-type aircraft will, in airborne operations, evacuate casualties from the objective area until such time as ground line-up is attained, and will evacuate casualties from the initial point of treatment or subsequent hospitalization within the combat zone to points outside the combat zone.

(2) The theater air commander determines the forces to be allocated to evacuate sick and wounded. His decision is predicated upon an estimate by the theater surgeon of the number of anticipated casualties, the estimate being based on past experience and the nature of current theater operations. From this information the air commander provides sufficient troop carrier forces, with varying types of equipment, to perform the evacuation of casualties from front line combat units to rear area hospitals. The theater air commander is responsible for establishing and maintaining facilities in the combat and communication zone that will permit the evacuation of casualties in an orderly and expeditious manner.

(3) Since the enemy may use weapons of mass destruction in tactical situations, the theater air commander must be prepared to dispatch rapidly troop carrier forces into areas of disaster for evacuation of casualties on a scale not heretofore encountered in warfare. This condition demands centralized direction and control of theater air evacuation forces so that they can be rapidly diverted from other tasks and concentrated to those areas that have been subjected to attack. The areo-medical evacuation of casualties is such an important function, not only for the savings of lives but for maintaining morale, that it must be conducted by an air organization having the capacity and flex-

ibility to operate under all conditions and areas and to serve all forces throughout the theater. For economy of effort and continuity of action, the theater air commander is the agent for the theater in accomplishing this function.

e. Airborne Operations:

(1) Airborne operations may be conducted to create diversions, to relieve pressure on friendly forces, to dislocate enemy communications, to carry out special operations including raids, and support to partisan forces, and so forth. Any sizeable airborne operation creates severe drains on materiel and personnel. In addition, the vulnerability of the air lift and surface forces to enemy air and ground fire necessitates a high degree of assurance of security as a prerequisite to operations. The risk incurred must be offset by gains of significant magnitude. These factors dictate that the decision to conduct an airborne operation must be the responsibility of the theater commander.

(2) The air lift forces participating in the operation are under the direct supervision and control of the troop carrier commander. The theater air commander advises the theater commander in matters pertaining to the feasibility of the air phases of the operation. These include questions as to the suitability of the available air forces, adequacy of drop zones, enemy air capability, navigation, logistic and training requirements, weather factors, and the adequacy of departure bases.

(3) The troop carrier commander is charged with delivering troops and supplies to designated areas at predetermined times; and under certain conditions with resupplying the friendly forces engaged in the surface action. If an airhead is established as part of the operation, the air commander controls the airhead and all functions thereon.

(4) Precision and coordination are requisite. Airborne operations must be coordinated with all friendly forces over which they must pass. Intensive training and rehearsal are vital prerequisites to the skillful accomplishment of the air phases of the operation.

(5) Many other types of air forces may enter into an airborne operation. Forces engaged in reconnaissance, air defense, interdiction, close support, escort, and evacuation operations may join with the forces charged both with airlifting the troops into the area and the subsequent resupplying of the surface operations. The advance determination of the extent of this participation must be carefully appraised in the light of other theater requirements.

Chapter 5

COMMAND AND CONTROL

1. Command and Theater Forces

a. Theater forces are organized and employed in accordance with the tenet of mutual support. Each theater component force is dependent upon the other for the accomplishment of certain functions and activities associated with the operations of a particular force. Compatible with the objective of mutual support, each component force is concentrated on those tasks it is best able to accomplish by virtue of the medium in which it operates, and depends upon other forces to produce concurrent effects in their medium of action.

b. No one theater component is self-contained or capable within itself of achieving the theater mission. It is air, ground, and sea forces in concert which provide the fundamental means and working relationship for accomplishing the mission assigned the theater. The theater mission is the sum of the interrelated missions of the three component forces.

c. Theater operations necessitate a unified action in which all forces are employed in the furtherance of a single mission. To obtain an integrated effort, the command system adopted for theater operations provides for singleness of direction, decentralization of responsibility, rapidity of action, and flexibility of employment. The principle of unified command is the basis upon which the command system for theater operations is predicated. This system of command provides for a single unified commander who is the directing and controlling authority for the actions of all forces within a theater.

d. The theater commander is provided with a combined or joint staff to assist and advise him in the overall employment of the forces assigned. Under the theater commander are the three component force commanders. These commanders are responsible for the command and employment of their forces in accordance with the directives and guidance furnished by the theater commander.

2. Command Relationships

a. *Theater Commander:*

(1) The theater commander is appointed by competent authority to exercise unified command of all forces assigned to a theater of operations. The extent of authority possessed by a theater commander is determined by the assigned mission, nature of the forces, and the role of the theater in the global strategy. The appointing authority provides strategic guidance to theater commanders for the conduct of their operations.

(2) The theater commander when so appointed is not simultaneously commander of one of the major component forces of the theater. He exercises command of the theater forces through the component force commanders. The theater commander defines the tasks and indicates priority for the employment of the various forces by the respective component commanders. By virtue of his position, the theater commander is a multiservice officer, and, therefore, owes allegiance to no one particular service.

(3) The principal advisors of the theater commander are the component commanders. These individuals comprise the consultatory body for theater operations, and provide the expert knowledge and assistance in selecting the objective and setting forth the general scheme of employment of theater forces.

(4) For matters incapable of mutual resolution by the component commanders, the

theater commander is the final authority. It is the theater commander who is responsible for the success or failure of theater operations. Unity of purpose and singleness of action by all theater forces are required.

b. *Theater Component Commanders:*

(1) Air, ground, and sea forces are coequal and interdependent. Each of the component commanders functions as an independent agent of the theater commander. Each is responsible for the detailed operations of his forces to include tactics, techniques, and procedures promulgated by that service. Unity of action of these commanders is achieved by unified command vested in the theater commander, common doctrine, and mutual support.

(2) Theater operations require close coordination between the component force commanders. This is achieved by the exchange of liaison officers, location of headquarters in close proximity to each other, free exchange of operational plans, and frequent staff visits and conferences. Coordination of the efforts of the component commanders begins with the theater headquarters, and permeates all echelons of the operating agencies. It is an individual responsibility of each component commander to assume the initiative in coordinating the activities of his forces with other forces when matters of mutual interest and concern are involved. Coordination is a multilateral action and mutually shared by each of the three component commanders.

c. *Theater Air Component Commander:*

(1) All air forces assigned to a theater of operations are placed under the command of a single theater air commander. The theater air commander is responsible for the conduct of all air operations essential to the theater mission, and for the establishment of subordinate air commands required for the discharge of his assigned responsibilities.

(2) Theater air forces may consist of air units from any service or any participating nation. When such air units are assigned, and compatible with the tactical situation, their service or national integrity is maintained and they are operated as a unit.

(3) Air forces within a theater of operations are an entity. Their fullest exploitation is achieved through centralized direction. By means of centralized direction, theater air forces are able to produce more positive results in facilitating the actions of all theater forces. Theater air forces are employed as a single integrated unit, and elements thereof are not placed under the command of other theater forces.

(4) For specialized operations or in time of emergency, the theater air commander may be given operational control of air units not normally assigned the theater. For such circumstances, the theater air commander is responsible for the selection of targets, assignment of tasks, designation of forces, and the plan of employment. Forces allocated to the operational control of the theater air commander are employed as a unit, and integrity of the force is preserved. Upon completion of the task brought about by an unusual situation and beyond the capability of theater air forces, the operational control of those allocated forces immediately reverts to the parent command.

3. Special Command Arrangements

a. The theater command structure is sufficiently flexible to conduct all types of theater operations without creating specialized task and joint forces. The theater commander, however, may elect to create a joint task force for the accomplishment of a limited objective and entailing actions of limited duration and magnitude.

b. When a joint task force is established, it is organized in accordance with the principle of unified command, and designated elements of theater air forces are assigned. The air elements assigned are placed under the operational control of the air component commander of the joint task force. Command relationships between the component forces and the joint force commander are the same as those prevailing in the theater command structure.

4. Control of Theater Air Forces

a. Overall control of theater air forces is vested in the theater air commander. In order to exercise this control, the theater air commander establishes subordinate air organizations and delegates authority accordingly. The degree to which this authority is delegated will depend upon the particular phase to which counter air operations have progressed. During the decisive phase, maximum control is retained by the theater air commander since the preponderance of theater air forces are engaged in this action, and centralized direction is essential for integrating the effort of all participating air forces. As the air war moves into the exploitation phase, control is delegated to subordinate air organizations to apply the allocated forces in accordance with the tactical situation. Irrespective of the phase of the air war, control is maintained by the theater air commander in terms of objectives, assignment of tasks, and general scheme of employment.

b. Depending upon the mission of the theater, subordinate air organizations are established and forces allocated accordingly. When major surface forces are engaged, tactical air commands are designated to work in close coordination with army groups and appropriate naval headquarters. The tactical air commanders create subordinate tactical air forces to work in conjunction with field armies. Thus, appropriate air headquarters are located in close proximity to surface force headquarters to closely coordinate their respective actions.

c. Theater air forces require a highly developed and systematized control and communication system. This system begins at theater air level and extends into the lowest operational air echelon. By means of this system, the air commander can shift, redeploy, and concentrate theater air forces to the most pressing requirements. The system is a continuous chain operated by the air commander and is capable of controlling all types of air actions for which the theater air commander is responsible. This single system is employed to control counter air, interdiction, reconnaissance, close support, and airlift operations. It is sufficiently flexible to shift the control of the forces of one command to another without disruption of current operations. Through this control system, air operations rapidly can be switched from one objective to another with the effort always concentrated on the critical objective. It is the control system which provides the tool for the exploitation of the inherent flexibility of theater air forces.

U. S. GOVERNMENT PRINTING OFFICE: 1954